

Inferior vena cava agenesis: a predisposing condition to bilateral deep vein thrombosis in young patients

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A 34-year-old woman presented with recurrent bilateral leg pain and swelling. Physical examination showed bilateral swelling and Homans test was positive. The patient did not have any known predisposing conditions. Lower extremity Doppler ultrasound examination showed bilateral thrombus extending from the deep and superficial femoral veins to the main femoral vein. The inferior vena cava and external iliac veins could not be visualised. Contrast-enhanced computed tomography in the venous phase was performed, which showed infrarenal segmental agenesis of the inferior vena cava with dilated inferior mesenteric vein, renal veins and collateral veins as a way of bypass (**Figure 1**).

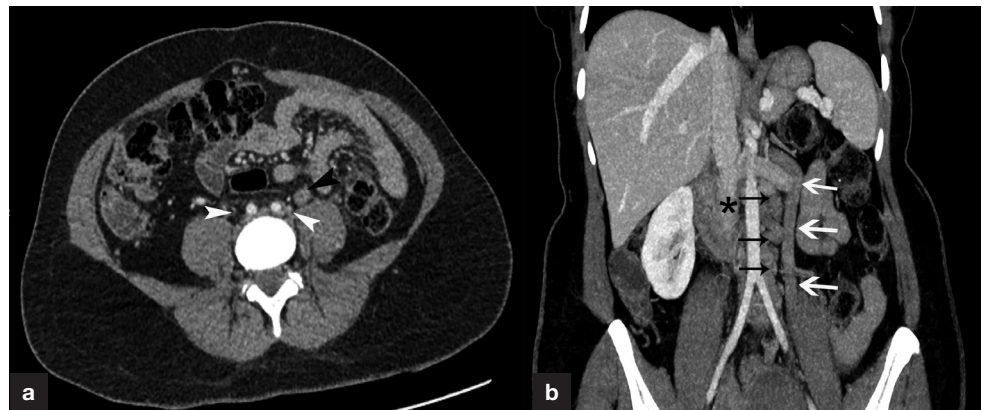


Figure 1. a. Axial computed tomography showed bilateral iliac veins agenesis (white arrowheads) and dilated inferior mesenteric vein at the left psoas muscle anterior (black arrowhead). b. Coronal computed tomography showed infrarenal segmental agenesis of inferior vena cava (asterisk), with dilated collateral veins (black arrows) and inferior mesenteric vein (white arrows) as a way of bypass.

Inferior vena cava agenesis is rare, but around 5% of patients younger than 30 years old with a diagnosis of deep vein thrombosis have a total or segmental inferior vena cava agenesis (Ramos Aranda et al, 2018). Thus, it is important to consider inferior vena cava agenesis as a differential diagnosis in young patients with bilateral deep vein thrombosis.

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